# RAW SEQUENCE LISTING PATENT APPLICATION US/09/003,574

DATE: 02/20/98 TIME: 09:40:38

INPUT SET: S23591.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

1 2	SE	QUENCE LISTING ENTER
3	(1) General Information:	QUENCE LISTING ENTERED
5 6	(i) APPLICANT: Tripp, Cynthia i Frank, Glenn R.	Ann
7 8	Grieve, Robert I	3 <b>.</b>
9 10	(ii) TITLE OF INVENTION: NOVEL I	
11 12 13	(iii) NUMBER OF SEQUENCES: 36	
14 15 16	(iv) CORRESPONDENCE ADDRESS: (A) ADDRESSEE: SHERIDAN RO (B) STREET: 1700 LINCOLN S	
17	(C) CITY: DENVER	31., Solik 3300
18 19	(D) STATE: CO (E) COUNTRY: USA	
20 21	(F) ZIP: 80203	
22 23 24 25 26	(v) COMPUTER READABLE FORM:  (A) MEDIUM TYPE: Floppy d:  (B) COMPUTER: IBM PC compa  (C) OPERATING SYSTEM: PC-1  (D) SOFTWARE: Patentin Ref	atible DOS/MS-DOS
27 28	(vi) CURRENT APPLICATION DATA:	reade #1.0, verbien #1.50
29 30 31 32	<ul><li>(A) APPLICATION NUMBER:</li><li>(B) FILING DATE:</li><li>(C) CLASSIFICATION:</li></ul>	
33 34 35 36	(viii) ATTORNEY/AGENT INFORMATION (A) NAME: Connell, Gary J (B) REGISTRATION NUMBER: : (C) REFERENCE/DOCKET NUMBI	32,020
37 38 39 40 41 42	(ix) TELECOMMUNICATION INFORMAT: (A) TELEPHONE: (303) 863-023	9700
43	(2) INFORMATION FOR SEQ ID NO:1:	
44 45 46	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 1299 base pair	rs

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/003,574

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(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

#### (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

60	ACGCAGAAAG	AAATTATCGA	AGTCAGTGGA	TTCATTGTTC	ТТТТТТТТСТ	TTTTTTTTT
120	CAAAGAGAGA	CTTGAACGTA	AACTTATCAC	CACATCAAAC	TACGTTAGAT	CATCACGAAA
180	CGGGATCCTG	ATTACAACGA	ATGAAATAGT	ACATTAGCTG	AGATGATAAG	TTGGAAACAT
240	TATCAAGGCG	AGATGCATAC	TTAATGATCC	GAACTATTCA	GCATCATAAT	AGGCAAAATG
300	AATGAAATTG	ACATTTTAAA	TTCTAAGCGA	CAAGCCGAAA	GTCGGAAAAA	ATGTCGATTT
360	CGTGAACCAT	GAGCATTGGT	GGCGAAAAA	ACAATAATAC	GAAAGACGAC	CTTTAACAGA
420	AGTATTCCAT	ATTTGCGGAA	TTAGCTATGA	AAACGTCCCA	ATGGAATCAT	TTTACGTAAG
480	ACATGCATAC	GGAAGAACGA	TAGCAATGTG	CGTTCAGCAA	TAGAAAAATT	TAGAAACACG
540	GGCGGTTGTT	TTACGACGGT	GAATTGAATT	AATGTAGATC	AAATGGCCCA	GATTCCAAGA
600	TGATATTATT	CACCAGGATG	TCAATTTCAA	GGAGGGAATT	CGGCCGAACA	CAAGTTTTGT
660	AGCACGTCGT	TTCATGAGCA	TTAGGAATAT	TGGTCATACT	CACATGAAAT	GGTATTATAT
720	TTGGAACAAT	CATCAAGCCG	AACAATATTC	TATTAATTAC	ATCATATTTT	GATCAAAAA
780	TACAGGATCA	TACCTTATGA	ATGTTTAATT	TGAAGCTGAT	TATCAGAATA	TTTTTTCCAT
840	TATTACAACA	ATGAACCAAC	AGAAATCCGT	CGGATTTGCA	ATGGTTCATA	GTAATGCACT
900	TCTGGATTAT	GGCCATCATT	CAACGTGAAG	CACAATTGGG	TTCAACAGTA	CGTGATAAAT
960	GGATGATAAT	GTTATCAAAT	TAATGATATT	ACAAACGCAT	AGCTTTATCT	GCATCTGTTA
1020	TGCACTGCGA	TGTGCTGATA	TACAGAACAA	CTTATCGTTG	ATAAACAGCG	TTCAATAAGT
1080	ATGGTTTTGC	TTGTGTCCAG	CGCGAAATGC	CTAATAATTG	TATCCGGATC	TCATAATGGT
1140	AGGTAAGTAT	GCTCTCATTA	ATCTTGCGGA	TTCAATATAC	TGTCAATTTG	TGGTCGTACC
1200	TCCGTCTAAT	ATATGTATCT	TAAGTTAAGC	GACTAAAATA	CCTCTTCTCT	TGTCTTTTGA
1260	AATTTTTGAA	ATAATATAAA	CTTCTTGATA	GTTCAATGCT	ATTTTGATTT	GATTTTCTTG
1299			AAAAAAAA	AAAAAAAAA	ACTTTTGGTC	AATAAAGTTA

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/003,574

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			4	MFUI SEI. SZ.	331.1UW
100 101	(2) INFORMATION FOR SEQ ID NO:	2:			
102	-				
103	(i) SEQUENCE CHARACTERIST	cs:			
104	(A) LENGTH: 2126 base				
105	(B) TYPE: nucleic ac:	ld			
106	(C) STRANDEDNESS: sin	ngle			
107	(D) TOPOLOGY: linear				
108					
109	(ii) MOLECULE TYPE: cDNA				
110					
111					
112	(with applying programment)	770 TD NO.0.			
113	(xi) SEQUENCE DESCRIPTION:	SEG ID NO:2:			
114 115	GAAAGCATCA CGAAATACGT TAGATCACA	ጥ ሮአአአሮአአሮሞጥ	<b>አ</b> ጥሮ እ ሮሮሞሞር እ	ACCTACAAAC	60
116	GAAAGCAICA CGAAAIACGI IAGAICACA	II CAAACAACII	ATCACCITGA	ACGIACAAAG	00
117	AGAGATTGGA AACATAGATG ATAAGACAT	TT AGCTGATGAA	<b>АТАСТАТТАС</b>	AACGACGGGA	120
118	ACACHIOCA MANIMONIO IIIMICIONI				
119	TCCTGAGGCA AAATGGCATC ATAATGAAG	T ATTCATTAAT	GATCCAGATG	CATACTATCA	180
120		•		•	
121	AGGCGATGTC GATTTGTCGG AAAAACAAC	C CGAAATTCTA	AGCGAACATT	TTAAAAATGA	240
122					
123	AATTGCTTTA ACAGAGAAAG ACGACACAA	AT AATACGGCGA	AAAAAGAGCA	TTGGTCGTGA	300
124					
125	ACCATTTAC GTAAGATGGA ATCATAAAC	CG TCCCATTAGC	TATGAATTTG	CGGAAAGTAT	360
126					
127	TCCATTAGAA ACACGTAGAA AAATTCGTT	C AGCAATAGCA	ATGTGGGAAG	AACGAACATG	420
128 129	CATACGATTC CAAGAAAATG GCCCAAATG	.m. x.c.xmccxxmm	C	ACCOMOCOCO	480
130	CATACGATIC CAAGAAAATG GCCCAAATC	SI AGAICGAAII	GAATTTTACG	ACGGIGGCGG	400
131	TTGTTCAAGT TTTGTCGGCC GAACAGGAC	ያር ርልልጥጥጥሮልልጥ	TTCAACACCA	<b>ССАТСТСАТА</b>	540
132	TIGITOMOT TITOTOGGG GMGNGGN		1101110110011		0.0
133	TTATTGGTAT TATATCACAT GAAATTGG	C ATACTTTAGG	AATATTTCAT	GAGCAAGCAC	600
134					
135	GTCGTGATCA AAAAAATCAT ATTTTTATT	TA ATTACAACAA	TATTCCATCA	AGCCGTTGGA	660
136					
137	ACAATTTTTT TCCATTATCA GAATATGAA	G CTGATATGTT	TAATTTACCT	TATGATACAG	720
138					
139	GATCAGTAAT GCACTATGGT TCATACGG	AT TTGCAAGAAA	TCCGTATGAA	CCAACTATTA	780
140					0.40
141	CAACACGTGA TAAATTTCAA CAGTACACA	AA TTGGGCAACG	TGAAGGGCCA	TCATTTCTGG	840
142 143	ATTATGCATC TGATAAACAG CGCTTATCO	.m mamaaaaaaa	3 3 TOTO CTC 3	TATO A CTOO	900
143	ATTATGCATC TGATAAACAG CGCTTATCC	31 IGIACAGAAC	AAIGIGCIGA	INIGCACIGC	900
145	GATCATAATG GTTATCCGGA TCCTAATAA	т тасасалал	GCTTGTGTCC	<b>Δ</b> G <b>Δ</b> TGGTTTT	960
146	CATCATAATO OTTATOOGGA TOOTAATA		001101010		300
147	GCTGGTCGTA CCTGTCAATT TGTTCAATA	AT ACATCTTGCG	GAGCTCTCAT	TAAGGCGAGG	1020
148					
149	AAAATGCCTG TTACGATTTC GAGCCCAAA	AT TATCCAAACT	TCTTCAATGT	TGGTGATCAA	1080
150					
151	TGTATTTGGT TGCTTACAGC TCCACGCG	rg attcgtaaat	TTGCAGTTTG	TTGAACAATT	1140
152					

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153 154	TCAATTACAA TGT	'GAAGATA	CGTGTGATAA	ATCCTATGTA			1200
155 156	TTTTCGACCT ACT	GGATATC	GATTTTGTTG	TTCGCGAGTG	CCACGTCATA	TTTTTCAATC	1260
157 158	TGCGACAAAC GAG	ATGGTAG	TAATATTTCG	CGGTTTTGGT	GATGCGGGAA	ATGGCTTTAA	1320
159 160	AGCTAAAATT TGG	TCAAACG	TAGATGATGA	TATAGCTAAT	ACAATTGTAA	CAACTGAAAT	1380
161 162	GGCAAAAATT TCG	GAAAAA	TACCGAAGCT	AACAGTTCCA	ATAGTTAAAA	CTATTACCAC	1440
163 164	TCCTACAATA ACA	ACTACTA	CTGCTTTCAT	GATATCACCC	AAGAAAGGCA	ATGTCACCGC	1500
165 166	CACGAGAGTT GCT	'ATCACTA	CTACGCCGAC	TACTACAATT	ACTACGACTA	TTGCCGGTAC	1560
167 168	GTACCAATCA CCG	ТААСТАА	TAATACTACA	CCTGTAGTAA	GTGAAACTTT	ACCATCATTG	1620
169 170	CCAGTCAAGA TTC	GAAACAA	AATAGGTGCA	TGCGAATGTG	GTGAATGGAC	AGAATGGACA	1680
171 172	GGTCCATGCT CTC	AAGAATG	TGGCGGTTGC	GGAAAACGTC	TTCGAACACG	TCAGTGTTCA	1740
173 174	TCAGATACGG AAT	GTAGAAC	AGAAGAAAA	CGTGCGTGTG	CTTTTAAGTT	TGCCCATACG	1800
175 176	GGACTAATTT CCT	TATCAAT	AATGGAGAGT	TTCATATACT	TTGGAAGGGC	TGCTGTGTTG	1860
177 178	GTCTATTCCG ATC	GGGAGAT	ATGTGTTCAG	CACTTGATGA	TAACGAGAAT	CCATTTCTGA	1920
179 180	AATTTCTAGA ATC	ACTGTTG	AACATGCAAG	ATTCTCGAAA	AAACGATAAT	TTGCCTGACT	1980
181 182	CGAAAAAGAA GTG	ATTGAAT	GATTCGATAA	TATTGATTAA	TAAAACGGGT	TGTATTCTCG	2040
183 184	TCATAGAGTA TCC	GTTGATG	TTTTTATCCA	AAAAATTCTC	TTGCTTTTAA	TTATTGTGAA	2100
185 186	TAAAACTTTT GTT	TACCCAA	ААААА				2126
187 188	(2) INFORMATIO	N FOR SE	Q ID NO:3:				
189	–		ACTERISTICS				
190 191	, ,		191 amino a ino acid	acids			
192		STRANDED					
193	:_:		: linear				
194							
195	(ii) MOLEC	ULE TYPE	: protein				
196 197							
198							
199	(xi) SEQUE	NCE DESC	RIPTION: SE	EQ ID NO:3:			
200	_		_	_	_	_	
201	_	_			_	ln Lys Ala S	er
202 203	1	5	1	10		15	
203	Ara Asn T	hr Leu A	sp His Tle	Lvs Gln Le	u Ile Thr T	eu Asn Val G	l n
205	ary asii I	20	ob wrp tre	25 .	~ 116 1111 1	30 30	

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/003,574

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206																
	1 m ~	Glu	т1.	a1	3 ~ ~	T1.	N a.m.	8 ~~	T	mb ~	T 011	310	1 ~~	a1	T1.	1707
207	Arg	GIU	35	СТУ	ASII	тте	ASP	40	цуз	1111	Leu	АТА	_	GIU	тте	var
208			33					40					45			
209	T	<b>~</b> 1 -	3	<b>3</b>	1	D	<b>~</b> 1		T	m	77 i	774 -	3	<b>a</b> 3	T	Dh.
210	Leu	Gln	Arg	Arg	ASD	PIO		АТА	rÃz	пр	uis		ASII	GIU	rea	Pne
211		50					55					60				
212		_	_	_	_		_	_		~1	_		_	_		<b>~</b> 7
213		Asn	Asp	Pro	Asp		Tyr	туr	GIN	GTĀ	-	vaı	Asp	Leu	Ser	
214	65					70					75					80
215											_	_				_
216	Lys	Gln	Ala	Glu		Leu	Ser	Glu	His		Lys	Asn	Glu	Ile		Leu
217					85					90					95	
218		_				_					_	_				_
219	Thr	Glu	Lys	_	Asp	Thr	Ile	Ile	_	Arg	Lys	Lys	Ser		Gly	Arg
220				100					105					110		
221	_		_										_			_
222	Glu	Pro		Tyr	Val	Arg	Trp		His	Lys	Arg	Pro	Ile	Ser	Tyr	Glu
223			115					120					125			
224																
225	Phe	Ala	Glu	Ser	Ile	Pro	Leu	Glu	Thr	Arg	Arg	Lys	Ile	Arg	Ser	Ala
226		130					135					140				
227																
228	Ile	Ala	Met	Trp	Glu	Glu	Arg	Thr	Cys	Ile	Arg	Phe	Gln	Glu	Asn	Gly
229	145					150					155					160
230																
231	Pro	Asn	Val	Asp	Arg	Ile	Glu	Phe	Tyr	Asp	Gly	Gly	Gly	Cys	Ser	Ser
232					165					170					175	
233																
234	Phe	Val	Gly	Arg	Thr	Gly	Gly	Asn	Phe	Asn	Phe	Asn	Thr	Arg	Met	
235				180					185					190		
236																
237	(2) INFO	RMAT:	ION I	FOR S	SEQ 1	D NC	:4:									
238																
239	(i)	SEQU	JENCI	E CHA	ARACI	ERIS	STICS	;:								
239 240	(i)	_	JENCI ) LEI						5							
	(i)	(A)		NGTH:	141	ami	.no a		5							
240	(i)	(A)	) LEI	NGTH:	: 141 amino	ami aci	.no a		5							
240 241	(i)	(A) (B) (C)	) LEI ) TYI	NGTH: PE: a RANDE	: 141 amino EDNES	l ami aci SS:	.no a .d		5							
240 241 242	(i)	(A) (B) (C)	) LEI ) TYI ) STI	NGTH: PE: a RANDE	: 141 amino EDNES	l ami aci SS:	.no a .d		5							
240 241 242 243	, ,	(A) (B) (C)	) LEI ) TYI ) STI ) TOI	NGTH: PE: 6 RANDE POLOC	: 14] amino EDNES GY: ]	ami aci SS: Linea	.no a .d		5							
240 241 242 243 244	, ,	(A) (B) (C)	) LEI ) TYI ) STI ) TOI	NGTH: PE: 6 RANDE POLOC	: 14] amino EDNES GY: ]	ami aci SS: Linea	.no a .d		5							
240 241 242 243 244 245	, ,	(A) (B) (C)	) LEI ) TYI ) STI ) TOI	NGTH: PE: 6 RANDE POLOC	: 14] amino EDNES GY: ]	ami aci SS: Linea	.no a .d		5	·						
240 241 242 243 244 245 246	, ,	(A) (B) (C)	) LEI ) TYI ) STI ) TOI	NGTH: PE: 6 RANDE POLOC	: 14] amino EDNES GY: ]	ami aci SS: Linea	.no a .d		<b>5</b>							
240 241 242 243 244 245 246 247	(ii)	(A) (B) (C)	) LEI ) TYI ) STI ) TOI	NGTH: PE: 6 RANDE POLOC	: 14] aminc EDNES SY: ]	l ami o aci SS: Linea orote	no a d ar ein	ecids		4:						
240 241 242 243 244 245 246 247 248	(ii)	(A) (B) (C) (D)	) LEI ) TYI ) STI ) TOI	NGTH: PE: 6 RANDE POLOC	: 14] aminc EDNES SY: ]	l ami o aci SS: Linea orote	no a d ar ein	ecids		4:						
240 241 242 243 244 245 246 247 248 249	(ii) (xi)	(A) (B) (C) (D)	) LEI ) TYI ) STI ) TOI ECULI	NGTH: PE: 6 RANDE POLOC E TYE	: 141 amino EDNES GY: ] PE: [	l ami p aci SS: linea prote	no a d ar ein	cids	) NO:		Val	Gln	Val	Leu	Ser	Ala
240 241 242 243 244 245 246 247 248 249 250	(ii) (xi)	(A) (B) (C) (D) MOLI	) LEI ) TYI ) STI ) TOI ECULI	NGTH: PE: 6 RANDE POLOC E TYE	: 141 amino EDNES GY: ] PE: [	l ami p aci SS: linea prote	no a d ar ein	cids	) NO:		Val	Gln	Val	Leu	Ser 15	Ala
240 241 242 243 244 245 246 247 248 249 250 251 252	(ii) (xi) Ile	(A) (B) (C) (D) MOLI	) LEI ) TYI ) STI ) TOI ECULI	NGTH: PE: 6 RANDE POLOC E TYE	: 14] amino EDNES EY: ] PE: p	l ami p aci SS: linea prote	no a d ar ein	cids	) NO:	Val	Val	Gln	Val	Leu		Ala
240 241 242 243 244 245 246 247 248 249 250 251	(ii) (xi) Ile	(A) (B) (C) (D) MOLH	) LEI ) TYI ) STI ) TOI ECULI UENCI	NGTH: PE: 6 RANDE POLOC E TYE E DES	E 143  Amino  EDNES  GY: ]  PE: p  GCRIF  Phe  5	l ami o aci SS: linea orote PTION	no a d ar ein I: SE	cids Q II Val	) NO:	Val 10					15	
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254	(ii) (xi) Ile	(A) (B) (C) (D) MOLI	) LEI ) TYI ) STI ) TOI ECULI UENCI	NGTH: PE: 6 RANDE POLOC E TYPE E DES	E 143  Amino  EDNES  GY: ]  PE: p  GCRIF  Phe  5	l ami o aci SS: linea orote PTION	no a d ar ein I: SE	cids Q II Val	) NO:	Val 10					15	
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255	(ii) (xi) Ile	(A) (B) (C) (D) MOLH	) LEI ) TYI ) STI ) TOI ECULI UENCI	NGTH: PE: 6 RANDE POLOG E TYE E DES Asn Gly	E 143  Amino  EDNES  GY: ]  PE: p  GCRIF  Phe  5	l ami o aci SS: linea orote PTION	no a d ar ein I: SE	cids Q II Val	NO: Ala Thr	Val 10				Ile	15	
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256	(ii) (xi) Ile 1	(A) (B) (C) (D) MOLH SEQU	) LEI ) TYI ) STI ) TOI ECULI LEU Leu	NGTH: PE: 6 RANDE POLOG E TYPE  Asn  Gly 20	E 141 mmind EDNES EY: ]  CRIF Phe 5	amic aci Ss: Linea PTION Thr	no and	© II Val Ser	NO: Ala Thr 25	Val 10 Pro	Gly	Cys	Asp	Ile 30	15 Ile	Gly
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255	(ii) (xi) Ile 1	(A) (B) (C) (D) MOLH	) LEI ) TYI ) STI ) TOI ECULI LEU Leu	NGTH: PE: 6 RANDE POLOG E TYPE  Asn  Gly 20	E 141 mmind EDNES EY: ]  CRIF Phe 5	amic aci Ss: Linea PTION Thr	no and	© II Val Ser	NO: Ala Thr 25	Val 10 Pro	Gly	Cys	Asp	Ile 30	15 Ile	Gly

## **SEQUENCE VERIFICATION REPORT** PATENT APPLICATION *US/09/003,574*

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Original Text